

	<b>Docum nt ID</b>	<b>I u Dat</b>	<b>Pag</b>	<b>Titl</b>
<b>7</b>	<b>US 5560100 A</b>	<b>19961001</b>	<b>15</b>	<b>Systems and method for automatic disassembly</b>
<b>8</b>	<b>US 5443534 A</b>	<b>19950822</b>	<b>37</b>	<b>Providing electronic components for circuitry assembly</b>
<b>9</b>	<b>US 5379514 A</b>	<b>19950110</b>	<b>7</b>	<b>Electronic component installing apparatus and method</b>
<b>10</b>	<b>US 5339248 A</b>	<b>19940816</b>	<b>16</b>	<b>Apparatus for mounting electronic component on substrate</b>
<b>11</b>	<b>US 5314223 A</b>	<b>19940524</b>	<b>16</b>	<b>Vacuum placement system and method, and tool for use therein</b>
<b>12</b>	<b>US 5249356 A</b>	<b>19931005</b>	<b>8</b>	<b>Method and apparatus for mounting electronic component</b>
<b>13</b>	<b>US 5233745 A</b>	<b>19930810</b>	<b>9</b>	<b>Electronic-component mounting apparatus with monitoring device</b>
<b>14</b>	<b>US 5172468 A</b>	<b>19921222</b>	<b>18</b>	<b>Mounting apparatus for electronic parts</b>
<b>15</b>	<b>US 4995157 A</b>	<b>19910226</b>	<b>13</b>	<b>Component feeder system</b>

	<b>Curr nt OR</b>	<b>Curr nt XR f</b>	<b>R tri val Cla sif</b>	<b>Inv ntor</b>
<b>7</b>	<b>29/833</b>	29/712; 29/720; 29/740; 29/741		<b>Englert, Klaus</b>
<b>8</b>	<b>29/593</b>	29/610.1; 29/740; 29/835; 29/836		<b>Vinciarelli, Patrizio et al.</b>
<b>9</b>	<b>29/833</b>	29/740		<b>Okuda, Osamu et al.</b>
<b>10</b>	<b>700/121</b>	29/740; 29/743; 716/19		<b>Fujiwara, Muneyoshi et al.</b>
<b>11</b>	<b>294/64.1</b>	29/743; 29/758		<b>Harper, Jr., Donald K. et al.</b>
<b>12</b>	<b>29/833</b>	29/740; 29/741; 29/759		<b>Okuda, Osamu et al.</b>
<b>13</b>	<b>29/705</b>	29/740; 29/743; 29/833		<b>Morita, Takeshi</b>
<b>14</b>	<b>29/721</b>	29/740; 29/743; 29/833		<b>Tanaka, Satoru et al.</b>
<b>15</b>	<b>29/740</b>	198/385; 198/390; 198/399; 29/759; 29/834		<b>Hall, Douglas R.</b>

	<b>Docum nt ID</b>	<b>I ue Dat</b>	<b>Pages</b>	<b>Titl</b>
<b>1</b>	<b>US 5894657 A</b>	<b>19990420</b>	<b>23</b>	<b>Mounting apparatus for electronic component</b>
<b>2</b>	<b>US 5864944 A</b>	<b>19990202</b>	<b>19</b>	<b>Mounting apparatus of electronic components and mounting methods f th same</b>
<b>3</b>	<b>US 5727311 A</b>	<b>19980317</b>	<b>22</b>	<b>Method and apparatus for mounting component</b>
<b>4</b>	<b>US 5694219 A</b>	<b>19971202</b>	<b>15</b>	<b>Device recognizing method and apparatus for surface mounting device mount r</b>
<b>5</b>	<b>US 5619328 A</b>	<b>19970408</b>	<b>13</b>	<b>Component mounter and recognition method</b>
<b>6</b>	<b>US 5566447 A</b>	<b>19961022</b>	<b>13</b>	<b>Pick-up point correction device for mounter</b>

	Current OR	Current XRef	Retrieval Classif	Inventor
1	29/740	29/721; 29/741; 29/743; 901/40		Kanayama, Shinji et al.
2	29/833	29/712; 29/721; 29/740; 29/743; 294/64.1; 356/152.2; 414/737; 414/749.3; 702/104; 702/94; 901/47		Kashiwagi, Yasuhiro et al.
3	29/832	29/740; 29/759		Ida, Akiko et al.
4	356/615	29/720; 29/759; 29/834; 356/400		Kim, Hyo Won
5	356/621	356/638		Sakurai, Hiroshi
6	29/832	29/709; 29/711; 29/740		Sakurai, Hiroshi

	<b>Titl</b>	<b>Curr nt OR</b>	<b>Curr nt XR f</b>
<b>1</b>	<b>Electronic component mounting apparatus</b>	<b>29/720</b>	<b>29/705; 29/741; 29/833</b>
<b>2</b>	<b>Electrical component placing apparatus and method of placing electrical component</b>	<b>29/834</b>	<b>228/180.21; 29/740; 29/833</b>
<b>3</b>	<b>Apparatus for and method of automatically mounting electronic component on printed circuit board</b>	<b>29/833</b>	<b>221/289; 269/903; 29/740; 29/840</b>
<b>4</b>	<b>Chip mounting apparatus</b>	<b>29/740</b>	<b>29/720; 29/833; 29/846</b>
<b>5</b>	<b>Vision system apparatus and method for component/pad alignment</b>	<b>29/834</b>	<b>228/4.5; 250/225; 29/759; 29/833; 356/400</b>
<b>6</b>	<b>Method and apparatus for chip placement</b>	<b>29/833</b>	<b>29/720; 29/740; 29/759; 414/730; 700/259; 706/912; 901/40; 901/47</b>

	<b>Titl</b>	<b>Curr nt OR</b>	<b>Curr nt XR f</b>
<b>7</b>	<b>Method for soldering electronic component</b>	<b>29/840</b>	<b>219/121.63; 228/180.21; 228/49.1; 29/833</b>
<b>8</b>	<b>Electronic parts automatic mounting apparatus</b>	<b>29/721</b>	<b>29/740; 29/743; 29/833; 356/615</b>

	U	4	Document ID	I su Dat	Pag s	Titl
1	<input type="checkbox"/>	<input type="checkbox"/>	US 5115559 A	19920526	9	Electronic component mounting apparatus
2	<input type="checkbox"/>	<input type="checkbox"/>	US 5086559 A	19920211	11	Electrical component placing apparatus and method of placing electrical component
3	<input type="checkbox"/>	<input type="checkbox"/>	US 5084962 A	19920204	38	Apparatus for and method of automatically mounting electronic component on printed circuit board
4	<input type="checkbox"/>	<input type="checkbox"/>	US 5084959 A	19920204	6	Chip mounting apparatus
5	<input type="checkbox"/>	<input type="checkbox"/>	US 5044072 A	19910903	7	Vision system apparatus and method for component/pad alignment
6	<input type="checkbox"/>	<input type="checkbox"/>	US 4980971 A	19910101	17	Method and apparatus for chip placement

	<b>Curr nt OR</b>	<b>Curr nt XRef</b>	<b>R trieval Classif</b>	<b>Inventor</b>	<b>S</b>
<b>1</b>	<b>29/720</b>	<b>29/705; 29/741; 29/833</b>		<b>Oyama, Kenshu</b>	<input checked="" type="checkbox"/>
<b>2</b>	<b>29/834</b>	<b>228/180.21; 29/740; 29/833</b>		<b>Akatsuchi, Kazuyuki</b>	<input checked="" type="checkbox"/>
<b>3</b>	<b>29/833</b>	<b>221/289; 269/903; 29/740; 29/840</b>		<b>Takahashi, Kuniaki et al.</b>	<input checked="" type="checkbox"/>
<b>4</b>	<b>29/740</b>	<b>29/720; 29/833; 29/846</b>		<b>Ando, Tateo et al.</b>	<input checked="" type="checkbox"/>
<b>5</b>	<b>29/834</b>	<b>228/4.5; 250/225; 29/759; 29/833; 356/400</b>		<b>Blais, Bruno et al.</b>	<input checked="" type="checkbox"/>
<b>6</b>	<b>29/833</b>	<b>29/720; 29/740; 29/759; 414/730; 700/259; 706/912; 901/40; 901/47</b>		<b>Bartschat, Michael K. et al.</b>	<input checked="" type="checkbox"/>



	C	P	Imag Do . Di play d	PT
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2	<input type="checkbox"/>	<input type="checkbox"/>	US 5086559	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	US 5084962	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	US 5084959	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	US 5044072	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	US 4980971	<input type="checkbox"/>

	U	<input checked="" type="checkbox"/>	Docum nt ID	I u Dat	Pag	Titl
7	<input type="checkbox"/>	<input type="checkbox"/>	US 4979290 A	19901225	8	Method for soldering electronic component
8	<input type="checkbox"/>	<input type="checkbox"/>	US 4951383 A	19900828	42	Electronic parts automatic mounting apparatus

	<b>Curr nt OR</b>	<b>Curr nt XRef</b>	<b>R tri val Classif</b>	<b>Inv nt r</b>	<b>S</b>
7	29/840	219/121.63; 228/180.21; 228/49.1; 29/833		Chiba, Koichi	<input checked="" type="checkbox"/>
8	29/721	29/740; 29/743; 29/833; 356/615		Amao, Kenji et al.	<input checked="" type="checkbox"/>

	C	P	Imag Doc. Display d	PT
7	<input type="checkbox"/>	<input type="checkbox"/>	US 4979290	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	US 4951383	<input type="checkbox"/>

	<b>Title</b>	<b>Current OR</b>
<b>1</b>	<b>Mounting apparatus for lectr nic comp n nt</b>	<b>29/740</b>
<b>2</b>	<b>Mounting apparatus of electronic components and mounting methods of the same</b>	<b>29/833</b>
<b>3</b>	<b>Method and apparatus for mounting component</b>	<b>29/832</b>
<b>4</b>	<b>Device recognizing method and apparatus for surface mounting device mounter</b>	<b>356/615</b>
<b>5</b>	<b>Component mounter and recognition method</b>	<b>356/621</b>
<b>6</b>	<b>Pick-up point correction device for mounter</b>	<b>29/832</b>
<b>7</b>	<b>Systems and method for automatic disassembly</b>	<b>29/833</b>
<b>8</b>	<b>Providing electronic components for circuitry assembly</b>	<b>29/593</b>
<b>9</b>	<b>Electronic component installing apparatus and meth d</b>	<b>29/833</b>
<b>10</b>	<b>Apparatus f r mounting lectronic compon nt n substrate</b>	<b>700/121</b>

	<b>Current XRef</b>
<b>1</b>	<b>29/721; 29/741; 29/743; 901/40</b>
<b>2</b>	<b>29/712; 29/721; 29/740; 29/743; 294/64.1; 356/152.2; 414/737; 414/749.3; 702/104; 702/94; 901/47</b>
<b>3</b>	<b>29/740; 29/759</b>
<b>4</b>	<b>29/720; 29/759; 29/834; 356/400</b>
<b>5</b>	<b>356/638</b>
<b>6</b>	<b>29/709; 29/711; 29/740</b>
<b>7</b>	<b>29/712; 29/720; 29/740; 29/741</b>
<b>8</b>	<b>29/610.1; 29/740; 29/835; 29/836</b>
<b>9</b>	<b>29/740</b>
<b>10</b>	<b>29/740; 29/743; 716/19</b>

	<b>Title</b>	<b>Current R</b>
<b>11</b>	<b>Vacuum placement system and method, and tool for use therein</b>	<b>294/64.1</b>
<b>12</b>	<b>Method and apparatus for mounting electronic component</b>	<b>29/833</b>
<b>13</b>	<b>Electronic-component mounting apparatus with monitoring device</b>	<b>29/705</b>
<b>14</b>	<b>Mounting apparatus for electronic parts</b>	<b>29/721</b>
<b>15</b>	<b>Component feeder system</b>	<b>29/740</b>

	<b>Current XRef</b>
<b>11</b>	<b>29/743; 29/758</b>
<b>12</b>	<b>29/740; 29/741; 29/759</b>
<b>13</b>	<b>29/740; 29/743; 29/833</b>
<b>14</b>	<b>29/740; 29/743; 29/833</b>
<b>15</b>	<b>198/385; 198/390; 198/399; 29/759; 29/834</b>



<b>L Number</b>	<b>Hits</b>	<b>Search Text</b>	<b>DB</b>	<b>Time stamp</b>
<b>1</b>	<b>1</b>	<b>29/832.ccls. and head and discard near box and mounting</b>	<b>USPAT; US-P PUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:20</b>
<b>2</b>	<b>2</b>	<b>29/\$.ccls. and head and component adj discarding near box</b>	<b>USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:25</b>
<b>3</b>	<b>15</b>	<b>("4995157"   "5172468"   "5233745"   "5249356"   "5314223"   "5339248"   "5379514"   "5443534"   "5560100"   "5566447"   "5619328"   "5694219"   "5727311"   "5864944"   "5894657").PN.</b>	<b>USPAT</b>	<b>2003/09/17 14:22</b>
<b>4</b>	<b>2</b>	<b>apparatus and component adj discarding near box</b>	<b>USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:25</b>
<b>5</b>	<b>2</b>	<b>components adj discarding near box</b>	<b>USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:29</b>
<b>6</b>	<b>0</b>	<b>20020073536.URPN.</b>	<b>USPAT</b>	<b>2003/09/17 14:28</b>
<b>7</b>	<b>3</b>	<b>component adj mounting and discarding near box</b>	<b>USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:55</b>
<b>8</b>	<b>0</b>	<b>8195575.URPN.</b>	<b>USPAT</b>	<b>2003/09/17 14:54</b>
<b>9</b>	<b>38</b>	<b>component and discarding near box</b>	<b>USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB</b>	<b>2003/09/17 14:55</b>
<b>10</b>	<b>1</b>	<b>1996-399518.NRAN.</b>	<b>DERWENT</b>	<b>2003/09/17 14:58</b>
<b>11</b>	<b>15</b>	<b>("4995157"   "5172468"   "5233745"   "5249356"   "5314223"   "5339248"   "5379514"   "5443534"   "5560100"   "5566447"   "5619328"   "5694219"   "5727311"   "5864944"   "5894657").PN.</b>	<b>USPAT</b>	<b>2003/09/17 14:59</b>
<b>12</b>	<b>8</b>	<b>("4951383"   "4979290"   "4980971"   "5044072"   "5084959"   "5084962"   "5086559"   "5115559").PN.</b>	<b>USPAT</b>	<b>2003/09/17 15:00</b>

13	8	("4951383"   "4979290"   "4980971"   "5044072"   "5084959"   "5084962"   "5086559"   "5115559").PN.	USPAT	2003/09/17 15:02
-	0	compressing adj tool near cable and end adj connector	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 13:32
-	0	compressing adj tool near cable	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 13:32
-	0	compressing adj tool and body and handle and compress near member	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 13:33
-	31	compressing adj tool and body and handles	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 13:39
-	279	compressing adj tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 13:52
-	0	20020174538.URPN.	USPAT	2003/09/16 13:44
-	1	richard near Steiner. inv.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 14:24
-	21	richard near Steiner .inv.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 14:46
-	5	("2542201"   "3100334"   "4526070"   "5500998"   "6256923").PN.	USPAT	2003/09/16 14:27
-	5	("D352436"   "0941192"   "3540106"   "3686982"   "5165155").PN.	USPAT	2003/09/16 14:28
-	3	("3572189"   "0717800"   "2902759").PN.	USPAT	2003/09/16 14:44
-	16	3540106.URPN.	USPAT	2003/09/16 14:45
-	217	29/751.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 14:53

-	22	("2907040"   "2946368"   "3094774"   "3177567"   "3267565"   "3706219"   "3732718"   "3733674"   "3994090"   "4027368"   "4450621"   "4555847"   "4589271"   "4926685"   "4951369"   "5074031"   "5074142"   "5195352"   "5509194"   "5509291"   "5842371"   "5924322").PN.	USPAT	2003/09/16 14:49
-	6	("2519630"   "2752812"   "3157075"   "3170345"   "4526070"   "5280716").PN.	USPAT	2003/09/16 14:51
-	8	("2445480"   "3285107"   "3360068"   "4283933"   "4561282"   "4633558"   "4794780"   "4829805").PN.	USPAT	2003/09/16 14:52
-	172	29/758.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:02
-	9	("2369180"   "2786095"   "3325885"   "3711942"   "4730385"   "5211049"   "5392508"   "5546653"   "5647119").PN.	USPAT	2003/09/16 14:54
-	9	("2369180"   "2786095"   "3325885"   "3711942"   "4730385"   "5211049"   "5392508"   "5546653"   "5647119").PN.	USPAT	2003/09/16 15:00
-	0	72/410.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:03
-	3771	72/\$.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:03
-	67	72/409.01.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:07
-	8	("3212317"   "3416212"   "3571888"   "3594887"   "3732718"   "3903725"   "3931671"   "4534107").PN.	USPAT	2003/09/16 15:05
-	34	72/409.14.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:09
-	73	72/416.ccls. and connection and tool	USPAT; US-PGPUB; EP ; JPO; DERWENT; IBM_TDB	2003/09/16 15:21

-	18	81/313.ccls. and connecti n and to l	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:22
-	1	81/376.ccls. and c nnection and t ol	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:22
-	4	81/380.ccls. and connection and tool	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/16 15:22
-	22	("2907040"   "2946368"   "3094774"   "3177567"   "3267565"   "3706219"   "3732718"   "3733674"   "3994090"   "4027368"   "4450621"   "4555847"   "4589271"   "4926685"   "4951369"   "5074031"   "5074142"   "5195352"   "5509194"   "5509291"   "5842371"   "5924322").PN.	USPAT	2003/09/17 09:00
-	8	("2928299"   "2952174"   "3029670"   "3345856"   "3571888"   "3903725"   "4719789"   "5113727").PN.	USPAT	2003/09/17 09:04
-	2	6519838.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 11:47
-	15	("4995157"   "5172468"   "5233745"   "5249356"   "5314223"   "5339248"   "5379514"   "5443534"   "5560100"   "5566447"   "5619328"   "5694219"   "5727311"   "5864944"   "5894657").PN.	USPAT	2003/09/17 11:44
-	32	29/832.ccls. and mounting adj component near method	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 11:51

<b>L Number</b>	<b>Hits</b>	<b>Search Text</b>	<b>DB</b>	<b>Time stamp</b>
-	8	("2928299"   "2952174"   "3029670"   "3345856"   "3571888"   "3903725"   "4719789"   "5113727").PN.	USPAT	2003/09/17 09:04
-	2	6519838.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 11:47
-	15	("4995157"   "5172468"   "5233745"   "5249356"   "5314223"   "5339248"   "5379514"   "5443534"   "5560100"   "5566447"   "5619328"   "5694219"   "5727311"   "5864944"   "5894657").PN.	USPAT	2003/09/17 11:44
-	32	29/832.ccls. and mounting adj component near method	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 11:51
-	1	29/832.ccls. and head and discard near box and mounting	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:20
-	2	29/\$.ccls. and head and component adj discarding near box	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:25
-	15	("4995157"   "5172468"   "5233745"   "5249356"   "5314223"   "5339248"   "5379514"   "5443534"   "5560100"   "5566447"   "5619328"   "5694219"   "5727311"   "5864944"   "5894657").PN.	USPAT	2003/09/17 15:14
-	2	apparatus and component adj discarding near box	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:25
-	2	components adj discarding near box	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:29
-	0	20020073536.URPN.	USPAT	2003/09/17 14:28
-	3	comp nent adj m unting and discarding near box	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:55

-	0	8195575.URPN.	USPAT	2003/09/17 14:54
-	38	compon nt and discarding near box	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 14:55
-	1	1996-399518.NRAN.	DERWENT	2003/09/17 14:58
-	8	("4951383"   "4979290"   "4980971"   "5044072"   "5084959"   "5084962"   "5086559"   "5115559").PN.	USPAT	2003/09/17 15:00
-	8	("4951383"   "4979290"   "4980971"   "5044072"   "5084959"   "5084962"   "5086559"   "5115559").PN.	USPAT	2003/09/17 15:02
-	193	Okuda near Osamu.inv.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 16:05
-	13	Okuda near Osamu.inv. and 29/832.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 16:07
-	0	Okuda near Osamu.inv. and 294/2.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 16:07
-	4	Okuda near Osamu.inv. and 294/64.1.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/09/17 16:07